

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) A vehicle antitheft system comprising:

an immobilizer unit including:

first data processor means;

a first communication part connected with the first data processor means;

a first antenna connected with the first communication part;

a first storage connected with the first data processor means, the first storage preliminarily storing first data for mutual authentication; and

a second storage connected with the first data processor means; and

a portable unit including:

second data processor means;

a second communication part connected with the second data processor means;

a second antenna connected with the second communication part;

a third storage connected with the second data processor means, the third storage preliminarily storing the first data for mutual authentication; and

a fourth storage connected with the second data processor means, the fourth storage preliminarily storing second data for mutual authentication different from the first data for mutual authentication;

wherein:

the immobilizer unit further includes an information reception part connected with the first data processor means, and when a first instruction is fed into the information reception part, the first data processor means and the second data processor means ~~include means for authenticating~~authenticate each other by a first authentication comprising: (1) the first data processor means transmitting via the first antenna an encrypted data based on the first data for mutual authentication stored in the first storage and (2) the second data processor means receiving the encrypted data via the second antenna, decrypting the encrypted data and comparing the decrypted data to the first data for mutual authentication stored in the third storage; and

the first data processor means and the second data processor means ~~include means for authenticating~~authenticate each other by a second authentication, responsive to the first authentication between the first data processor means and the second data processor means, comprising: 1) the second data processor means transmitting the second data for mutual authentication stored in the fourth storage via the second antenna, 2) the first data processor means further storing, into the second storage, the second data for mutual authentication received via the first antenna and transmitting the second data for mutual authentication stored in the second storage via the first antenna, and 3) the second data processor means further storing, into the third storage, the second data for mutual authentication received via the second antenna.

2. (Currently Amended) A vehicle antitheft system comprising:

an immobilizer unit including:

first data processor means;

a first communication part connected with the first data processor means;

a first antenna connected with the first communication part;

a first storage connected with the first data processor means, the first storage preliminarily storing first data for mutual authentication; and

a second storage connected with the first data processor means, the second storage preliminarily storing second data for mutual authentication different from the first data for mutual authentication; and

a portable unit including:

second data processor means;

a second communication part connected with the second data processor means;

a second antenna connected with the second communication part; and

a third storage connected with the second data processor means, the third storage preliminarily storing the first data for mutual authentication;

wherein:

the immobilizer unit further includes an information reception part connected with the first data processor means, and when a first instruction is fed into the information reception part, the first data processor means and the second data processor means ~~include means for authenticating~~authenticate each other by a first authentication comprising: (1) the first data processor means transmitting via the first antenna an encrypted data based on the first data for mutual authentication stored in the first storage and (2) the second data processor means receiving the encrypted data via the second antenna, decrypting the encrypted data and comparing the decrypted data to the first data for mutual authentication stored in the third storage; and

the first data processor means and the second data processor means ~~include means for authenticating~~authenticate each other by a second authentication, responsive to the first authentication between the first data processor means and the second data processor means, comprising: 1) the first data processor means

transmitting the second data for mutual authentication that is stored in the second storage via the first antenna and 2) the second data processor means storing, into the third storage, the second data for mutual authentication received via the second antenna.

3. (Currently Amended) A vehicle antitheft system comprising:

an immobilizer unit including:

first data processor means;

a first communication part connected with the first data processor means;

a first antenna connected with the first communication part;

a first storage connected with the first data processor means, the first storage preliminarily storing first data for mutual authentication; and

a second storage connected with the first data processor means; and

a portable unit including:

second data processor means;

a second communication part connected with the second data processor means;

a second antenna connected with the second communication part; and

a third storage connected with the second data processor means, the third storage preliminarily storing the first data for mutual authentication;

wherein:

the immobilizer unit further includes an information reception part connected with the first data processor means, and when a first instruction is fed into the information reception part, the first data processor means and the second data

processor means ~~include means for authenticating~~ authenticate each other by a first authentication comprising: (1) the first data processor means transmitting via the first antenna an encrypted data based on the first data for mutual authentication stored in the first storage and (2) the second data processor means receiving the encrypted data via the second antenna, decrypting the encrypted data and comparing the decrypted data to the first data for mutual authentication stored in the third storage;

the first data processor means and the second data processor means ~~include means for authenticating~~ authenticate each other by a second authentication, responsive to the first authentication between the first data processor means and the second data processor means, comprising: 1) the first data processor means requesting the second data processor means via the first antenna to generate second data for mutual authentication different from the first data for mutual , 2) responsive to the request from the first data processor means, the second data processor means further generating, storing into the third storage, and transmitting via the second antenna, the second data for mutual authentication, 3) the first data processor means storing, into the second storage, the second data for mutual authentication received via the first antenna and transmitting the second data for mutual authentication stored in the second storage via the first antenna and 4) the second data processor means further storing, into the third storage, the second data for mutual authentication received via the second antenna.

4. (Currently Amended) A vehicle antitheft system comprising:

an immobilizer unit including:

first data processor means;

a first communication part connected with the first data processor means;

a first antenna connected with the first communication part;

a first storage connected with the first data processor means, the first storage preliminarily storing first data for mutual authentication; and

a second storage connected with the first data processor means; and

a portable unit including:

second data processor means;

a second communication part connected with the second data processor means;

a second antenna connected with the second communication part; and

a third storage connected with the second data processor means, the third storage preliminarily storing the first data for mutual authentication;

wherein:

the immobilizer unit further includes an information reception part connected with the first data processor means, and when a first instruction is fed into the information reception part, the first data processor means and the second data processor means ~~include means for authenticating~~authenticate each other by a first authentication comprising: (1) the first data processor means transmitting via the first antenna an encrypted data based on the first data for mutual authentication stored in the first storage and (2) the second data processor means receiving the encrypted data via the second antenna, decrypting the encrypted data and comparing the decrypted data to the first data for mutual authentication stored in the third storage;

the first data processor means and the second data processor means ~~include means for authenticating~~authenticate each other by a second authentication, responsive to the first authentication between the first data processor means and the second data processor means, comprising: 1) the first data processor means generating, storing into the second storage, and transmitting via the first antenna, second data for mutual authentication different from the first data for mutual authentication and 2) the second data processor means storing, into the third storage, the second data for mutual authentication received via the second antenna.

5. (Currently Amended) The vehicle antitheft system according to claim 1, wherein, upon input of a second instruction into the information reception part, when both of data stored in the second storage and the third storage are the second data for mutual authentication, either the first data processor means generates and stores into the second storage first accumulation data different from the second data for mutual authentication, or the second data processor means generates and stores into the third storage the first accumulation data; and

when both of data stored in the second storage and the third storage are identical to the first data for mutual authentication, either the first data processor means generates and stores into the second storage second accumulation data different from the first data for mutual authentication, or the second data processor means generates and stores into the third storage ~~the second accumulation data different from the first data for mutual authentication.~~

6. (Currently Amended) The vehicle antitheft system according to claim 1, wherein, upon input of a second instruction into the information reception part, when both of data stored in the second storage and the third storage are the second data for mutual authentication, the first data processor means transmits the first data for mutual authentication stored in the first storage via the first antenna, and the second data processor means stores, into the third storage, the first data for mutual authentication received via the second antenna; and

when both of data stored in the second storage and the third storage are identical to the first data for mutual authentication, either the first data processor means generates and stores into the second storage second accumulation data different from the first data for mutual authentication, or the second data processor means generates and stores into the third storage ~~the second accumulation data different from the first data for mutual authentication.~~

7. (Previously Presented) The vehicle antitheft system according to claim 1, wherein the portable unit further has a fifth storage preliminarily storing an ID code, and the first data processor means and the second data processor means authenticate each other also using the ID code.

8. (Previously Presented) The vehicle antitheft system according to claim 7, wherein the immobilizer unit further has a sixth storage, the second data processor means transmits, via the second antenna, the ID code stored in the fifth storage, and the first data processor means stores, into the sixth storage, the ID code received via the first antenna.

9. (Previously Presented) The vehicle antitheft system according to claim 8, wherein upon input of a second instruction into the information reception part, the first data processor means generates third accumulation data different from the ID code stored in the sixth storage, and stores the third accumulation data into the sixth storage.

10. (Currently Amended) The vehicle antitheft system according to claim 2, wherein, upon input of a second instruction into the information reception part, when both of data stored in the second storage and the third storage are the second data for mutual authentication, either the first data processor means generates and stores into the second storage first accumulation data different from the second data for mutual authentication, or the second data processor means generates and stores into the third storage the first accumulation data; and

when both of data stored in the second storage and the third storage are identical to the first data for mutual authentication, either the first data processor means generates and stores into the second storage second accumulation data different from the first data for mutual authentication, or the second data processor means generates and stores into the third storage ~~the second accumulation data different from the first data for mutual authentication.~~

11. (Currently Amended) The vehicle antitheft system according to claim 2, wherein, upon input of a second instruction into the information reception part, when both of data stored in the second storage and the third storage are the second data for mutual authentication, the first data processor means transmits the first data for mutual authentication stored in the first storage via the first antenna, and the second data processor means stores, into the third storage, the first data for mutual authentication received via the second antenna; and

when both of data stored in the second storage and the third storage are identical to the first data for mutual authentication, either the first data processor means generates and stores into the second storage second accumulation data different from the first data for mutual authentication, or the second data processor means generates and stores into the third storage ~~the second accumulation data~~ different from the first data for mutual authentication.

12. (Previously Presented) The vehicle antitheft system according to claim 2, wherein the portable unit further has a fifth storage preliminarily storing an ID code, and the first data processor means and the second data processor means authenticate each other also using the ID code.

13. (Previously Presented) The vehicle antitheft system according to claim 12, wherein the immobilizer unit further has a sixth storage, the second data processor means transmits, via the second antenna, the ID code stored in the fifth storage, and the first data processor means stores, into the sixth storage, the ID code received via the first antenna.

14. (Previously Presented) The vehicle antitheft system according to claim 13, wherein upon input of a second instruction into the information reception part, the first data processor means generates third accumulation data different from the ID code stored in the sixth storage, and stores the third accumulation data into the sixth storage.

15. (Currently Amended) The vehicle antitheft system according to claim 3, wherein, upon input of a second instruction into the information reception part, when both of data stored in the second storage and the third storage are the second data for mutual authentication, either the first data processor means generates and stores into the second storage first accumulation data different from the second data for mutual authentication, or the second data processor means generates and stores into the third storage the first accumulation data; and

when both of data stored in the second storage and the third storage are identical to the first data for mutual authentication, either the first data processor means generates and stores into the second storage second accumulation data

different from the first data for mutual authentication, or the second data processor means generates and stores into the third storage ~~the second accumulation data~~ different from the first data for mutual authentication.

16. (Currently Amended) The vehicle antitheft system according to claim 3, wherein, upon input of a second instruction into the information reception part, when both of data stored in the second storage and the third storage are the second data for mutual authentication, the first data processor means transmits the first data for mutual authentication stored in the first storage via the first antenna, and the second data processor means stores, into the third storage, the first data for mutual authentication received via the second antenna; and

when both of data stored in the second storage and the third storage are identical to the first data for mutual authentication, either the first data processor means generates and stores into the second storage second accumulation data different from the first data for mutual authentication, or the second data processor means generates and stores into the third storage ~~the second accumulation data~~ different from the first data for mutual authentication.

17. (Previously Presented) The vehicle antitheft system according to claim 3, wherein the portable unit further has a fifth storage preliminarily storing an ID code, and the first data processor means and the second data processor means authenticate each other also using the ID code.

18. (Previously Presented) The vehicle antitheft system according to claim 17, wherein the immobilizer unit further has a sixth storage, the second data processor means transmits, via the second antenna, the ID code stored in the fifth storage, and the first data processor means stores, into the sixth storage, the ID code received via the first antenna.

19. (Previously Presented) The vehicle antitheft system according to claim 18, wherein upon input of a second instruction into the information reception part, the first data processor means generates third accumulation data different from the ID code stored in the sixth storage, and stores the third accumulation data into the sixth storage.

20. (Currently Amended) The vehicle antitheft system according to claim 4, wherein, upon input of a second instruction into the information reception part, when both of data stored in the second storage and the third storage are the second data for mutual authentication, either the first data processor means generates and stores into the second storage first accumulation data different from the second data for mutual authentication, or the second data processor means generates and stores into the third storage the first accumulation data; and

when both of data stored in the second storage and the third storage are identical to the first data for mutual authentication, either the first data processor means generates and stores into the second storage second accumulation data different from the first data for mutual authentication, or the second data processor means generates and stores into the third storage ~~the second accumulation data~~ different from the first data for mutual authentication.

21. (Currently Amended) The vehicle antitheft system according to claim 4, wherein, upon input of a second instruction into the information reception part, when both of data stored in the second storage and the third storage are the second data for mutual authentication, the first data processor means transmits the first data for mutual authentication stored in the first storage via the first antenna, and the second data processor means stores, into the third storage, the first data for mutual authentication received via the second antenna; and

when both of data stored in the second storage and the third storage are identical to the first data for mutual authentication, either the first data processor means generates and stores into the second storage second accumulation data different from the first data for mutual authentication, or the second data processor means generates and stores into the third storage ~~the second accumulation data~~ different from the first data for mutual authentication.

22. (Previously Presented) The vehicle antitheft system according to claim 4, wherein the portable unit further has a fifth storage preliminarily storing an ID code, and the first data processor means and the second data processor means authenticate each other also using the ID code.

23. (Previously Presented) The vehicle antitheft system according to claim 22, wherein the immobilizer unit further has a sixth storage, the second data processor means transmits, via the second antenna, the ID code stored in the fifth storage, and the first data processor means stores, into the sixth storage, the ID code received via the first antenna.

24. (Previously Presented) The vehicle antitheft system according to claim 23, wherein upon input of a second instruction into the information reception part, the first data processor means generates third accumulation data different from the ID code stored in the sixth storage, and stores the third accumulation data into the sixth storage.